

## REMARKS

This application is a continuation-in-part of a parent application, U.S. Patent Application No. 09/523,569, now abandoned. Independent Claims 1, 7, and 13 have been currently amended. Claims 1-18 are now pending in this application.

In the Office Action dated March 18, 2005, the Examiner rejected Claims 1-4 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,032,119, issued to Brown et al. ("Brown"). The Examiner also rejected Claims 5-18 under 35 U.S.C. § 103(a) as being unpatentable over Brown in view of U.S. Patent No. 5,995,939, issued to Berman et al. ("Berman").

Applicant has amended independent Claims 1, 7, and 13 to more particularly point out the subject matter which Applicants claim as their invention. Applicants respectfully traverse the rejections of Claims 1-18 as set forth the Office Action. Specifically, the Applicants submit that Brown and Berman, either alone or in combination, fail to teach or suggest providing a display of healthcare information that is **organized according to an anatomic data model, and comprises medical history information for a patient including healthcare service order information, medical event information and medical encounter information**, as recited in amended independent Claims 1, 7 and 13. Pursuant to 37 C.F.R. § 1.111, and for the reasons set forth below, the Applicants respectfully request the examiner to reconsider and withdraw the rejections, and to allow this application as soon as possible.

Before discussing in detail the reasons why Applicants believe that Claims 1-18 are allowable, brief descriptions of the present invention and the cited and applied references are presented. The following discussion of the disclosed embodiments of Applicants' invention and the differences between the disclosed embodiments and the teachings in the applied references are not provided to define the scope or interpretation of any of the claims. Instead, the following

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discussion is provided to help the Examiner to better appreciate important claim distinctions discussed thereafter.

#### Summary of the Disclosed Embodiments

The present invention is directed toward a computer-readable medium and method for accessing healthcare information. According to one embodiment of the invention, accessing healthcare information for a patient is provided via an anatomic user interface. The anatomic user interface provides the user with an anatomic model of the patient from which the user may drill down to a particular anatomic structure of interest. Upon selection of the anatomic structure, the anatomic user interface displays to the user the healthcare information that is associated with the selected anatomic structure, and may include medical history information for the patient comprising healthcare service order information, medical event information, and medical encounter information.

The anatomic user interface displays an anatomic model of the patient using anatomic information provided by an anatomic data model. Among other uses, the anatomic data model provides the anatomic user interface with only that healthcare information that is associated with a particular anatomic structure, thereby eliminating information related to other nonselected anatomic structures. The healthcare information associated with a particular anatomic structure may further be constrained by outside elements that affect accepted medical practice. The outside elements may include medical diagnoses that have been attributed to a particular anatomic structure, payor information, service provider capabilities, local best practices, evidence-based medicine standards, regulatory requirements, etc.

By providing access to healthcare information as described above, the present invention provides advantages not found in prior art systems. In particular, when an anatomic structure of the anatomic model of the patient is selected by the practitioner, the anatomic data model

provides only that healthcare information for the patient that is associated with the selected structure. Accessing healthcare information for a patient using an anatomic model allows practitioners to eliminate irrelevant healthcare information and work with only a subset of relevant, more easily navigable information. Moreover, using aspects of the present invention, a practitioner can build upon preexisting medical history information for the patient to facilitate efficient and accurate diagnosis of and provision of healthcare services to the patient.

#### Summary of Brown

Brown discloses a personalized display of health information that patients can use to help them better understand and manage their medical condition using a computer. A personalized health model for the patient is generated from a generalized health model of the patient's health condition and patient-specific data. The display to the patient is in sections that include a body image as well as other sections, including a log book, a blood glucose, feedback, and mail center section. The body image section is personalized to match certain characteristics of the patient, such as age, height, gender, weight, build, skin color, and hair color. The patient interacts with the sections to record or obtain information about their health condition. The body image section includes subsections corresponding to organ's or other body parts. If a particular body part of the patient requires attention or care, the corresponding subsection of the body image section is highlighted.

Nothing in Brown suggests that this patient display system can be used by healthcare providers to access a medical history of a patient, much less to build upon preexisting medical history information for the patient to facilitate efficient and accurate diagnosis of and provision of healthcare services to the patient. Rather, the system in Brown is designed for patient use, particularly for patients to manage chronic disease affecting their health.

In summary, the Brown reference fails to teach or suggest using an anatomic model to

provide a display of healthcare information that is organized according to an anatomic data model and comprises medical history information for a patient, much less displaying healthcare service order information, medical event information and medical encounter information, as recited in independent Claims 1, 7 and 13.

#### Summary of Berman

Berman discloses an automated service request and fulfillment system designed for use by service providers and requesters to facilitate processing requests for services, including medical services. For example, the system may be used by healthcare providers to order lab tests for patients from a laboratory, or to request authorization to perform a medical procedure from the patient's insurer.

Among other assertions, the Examiner asserts that Berman suggests displaying medical history information for a patient including healthcare service order information, medical event information and medical encounter information as recited in the claims of the present application. However, the references to Berman cited by the Examiner include no references to any medical history of a patient. The Applicants have looked for but could find no references whatsoever in Berman from which the Examiner could draw such a conclusion. If anything, the Berman reference appears to disclose the type of system that does not support providing a medical history of a patient, but rather a universal service request fulfillment system that merely functions as an intermediary between systems, such as legacy healthcare systems, that might not otherwise be able to interact in an automated fashion, for the limited purpose of fulfilling independent service requests.

In summary, the Berman reference fails to teach or suggest using an anatomic model to provide a display of healthcare information that is organized according to an anatomic data model and comprises medical history information for a patient, much less displaying healthcare

service order information, medical event information and medical encounter information, as recited in Claim 5-18.

Rejection of Claims 1-4 under 35 U.S.C. § 102(e) as anticipated by Brown

Claim 1 as currently amended reads as follows:

1. A computer-readable medium having a computer-executable component for enabling a user to access healthcare information, the computer-executable component comprising:

an anatomic user interface for displaying an anatomic model from which the user selects an anatomic structure of interest, wherein, upon selection of the anatomic structure, the anatomic user interface displays the healthcare information, wherein the healthcare information **is organized according to an anatomic data model and** comprises medical history information for a patient including healthcare service order information, medical event information and medical encounter information (emphasis added.).

In support of the rejection of Claim 1, the Examiner cites a passage describing FIGURES 5A-5G of Brown depicting screen shots of information designed for display to a patient, including a body image, log book, blood glucose, feedback, and mail center sections. As described in Brown, the body image section is personalized to match certain characteristics of the patient, such as age, height, gender, weight, build, skin color, and hair color. The patient may use the log book, blood glucose, feedback, and mail sections to record and access information about their care. The body image section includes subsections corresponding to organ's or other body parts. If a particular body part of the patient requires attention or care, the corresponding subsection of the body image section is highlighted. The patient may request additional information about an organ or body part by clicking on the corresponding subsection.

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(Brown, Col. 6, Lines 46-67, Col. 7, Lines 1-14). In citing this description of FIGURES 5A- 5G, the Examiner is apparently equating the body image section and associated patient information displayed in Brown with the anatomic user interface and healthcare information displayed to health professionals in the disclosed embodiments of the present invention, wherein the healthcare information is **organized according to an anatomic data model and comprises medical history information for a patient including healthcare service order information, medical event information and medical encounter information**, as recited in Claim 1. The Applicants respectfully disagree.

The body image section that the Brown system displays is nothing more than a user-friendly display of a cartoon-like image of a body that has been personalized to match certain characteristics of the patient, such as age, height, gender, weight, build, skin color, and hair color. The purpose of the body image section is to simply to communicate to the patient in a simple and direct way information about their body and the management of their disease. Nothing in Brown suggests that the body image can be used by a health professional to provide access to healthcare information that is **organized according to an anatomic data model and comprises medical history information for a patient including healthcare service order information, medical event information and medical encounter information**, as recited in Claim 1.

The patient information that the Brown system uses is obtained from health provider inputs that have been aggregated onto a central server or are remotely accessible from a health care provider location. (Brown, Col 3, Lines 60-67, Col. 4, Lines 1-48). According to Brown, "examples of the data specified by the inputs include blood glucose level histories, generally acceptable blood glucose levels, dates of doctor examinations, generally recommended time periods between doctor examinations, ratings of the patient's interest for a cultural subject (e.g.,

sports, music), and display customization variables entered by the patient. (Brown, Col. 4, Lines 42-48). There is nothing to indicate that this information is organized according to an anatomic data model, or that the information is the type of detailed **medical history information for a patient including healthcare service order information, medical event information and medical encounter information** as might be used by a health care professional, and as recited in Claim 1. Indeed, the Examiner has already conceded in Page 5 of the Office Action, in reference to Claim 7, that Brown does not disclose displaying healthcare information that comprises medical history information as recited in Claims 1, 7, and 11.

In view of the foregoing, nothing in the Brown reference appears to disclose a display of healthcare information that is "organized according to an anatomic data model and comprises medical history information for a patient including healthcare service order information, medical event information and medical encounter information," as recited in Claim 1. Accordingly, the Applicants respectfully request reconsideration and allowance of Claim 1.

Claim 2 reads as follows:

2. The computer-readable medium of Claim 1, **wherein the healthcare service order information comprises a treatment plan for a patient consisting of a predetermined sequence of healthcare service orders** (emphasis added).

In support of the rejection of Claim 2, the Examiner cites FIGURE 5G in Brown. The Examiner is apparently equating the display in FIGURE 5G that is generated after the patient clicks on the subsection of the body image representing the heart with the display of a treatment plan as recited in Claim 2. The Applicants respectfully disagree.

The display in FIGURE 5G includes patient-oriented information about the heart generally in diabetes patients, about the current and historical conditions of the patient's heart,

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and about other patients' approaches to the hearts' care. Nothing in the cited portion of Brown suggests or discloses the display of the type of comprehensive detailed information about a patient's treatment that a healthcare professional would use, such as **a treatment plan for a patient consisting of a predetermined sequence of healthcare service orders**, as recited in Claim 2. Accordingly, the Applicants respectfully request reconsideration and allowance of Claim 2.

Claim 3 reads as follows:

3. The computer-readable medium of Claim 1, having a further computer-executable component comprising **an order engine for submitting an order for at least one healthcare service to a service provider** (emphasis added).

In support of the rejection of Claim 3, the Examiner cites one passage of Brown (Brown, Col. 6, Lines 30-44) describing how *a patient* can use the log book, blood glucose, feedback, and mail center sections to record and access their healthcare data such as blood glucose levels, and to communicate with their health care provider. The Examiner is apparently equating the patient's use of these user-friendly displays of patient-oriented information with the **order engine for submitting an order for at least one healthcare service to a service provider**, as recited in Claim 3. The Applicants respectfully disagree.

In reviewing the cited passage in Brown in Col. 6, Lines 30-44, the Applicants note that in the description of each section, Brown reiterates that the sections are designed for *patient use*, not healthcare provider use, e.g., "*The patient* can use a blood glucose center ..., [a] log book allows *the patient* to access ..., [a] mail center is used by *the patient* to download ..." (emphasis added). Nothing in the cited passage suggests that the log book, blood glucose, feedback, and mail center sections would be equivalent to **an order engine for submitting an order for at**

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**least one healthcare service to a service provider**, as recited in Claim 3. Accordingly, the Applicants respectfully request reconsideration and allowance of Claim 3.

Claim 4 reads as follows:

4. The computer-readable medium of Claim 3, **wherein the order engine submits a plurality of orders comprising a treatment plan to a service provider** (emphasis added).

In support of the rejection of Claim 4, the Examiner cites what appears to be portions of both Columns 5 and 6 in Brown, however it is unclear which portion of Brown in particular is cited. In any event, the Applicants could find nothing in Columns 5 or 6 in Brown, or in any other portion of Brown that discloses the submission of **a plurality of orders comprising a treatment plan to a service provider** as recited in Claim 4. There is the log book shown in FIGURE 4D that "allows the patient to access a ...treatment plan ... or lab test," and the mail center in FIGURE 4E that allows the patient to "download treatment directions." (Brown, Col. 6, Lines 37-42). If anything, this disclosure teaches away from the present invention, since the flow of information is from the healthcare provider, i.e., the patient's healthcare provider, to the patient, and not from the healthcare provider to a service provider. Indeed, nothing in this passage or in other portions of Brown would indicate that such actions are in any way equivalent to a healthcare professional's actions in submitting an order **comprising a treatment plan to a service provider** as recited in Claim 4. Accordingly, the Applicants respectfully request reconsideration and allowance of Claim 4.

Rejection of Claims 5-18 under 35 U.S.C. § 103(a) over Brown in view of Berman

The Applicants respectfully traverse all of the rejections of Claims 5-18 under 35 U.S.C. § 103(a) over Brown in view of Berman. Claim 5 reads as follows:

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5. The computer-readable medium of Claim 3, wherein the order engine automatically notifies the user in real-time **if the order is accepted by the service provider or if the authorization for the order is received from the payor.**

With respect to Claims 5 as set forth in the Office Action, the Examiner concedes that Brown does not expressly teach an order engine which automatically notifies the user in real-time if the order is accepted by the service provider or if the authorization of the order is received from the payor. However, the Examiner asserts that this feature is known in the art as evidenced by Berman, citing in particular the disclosure in Berman where a sponsor system e-mails back to a requesting client that a request has been fulfilled (Berman, Col. 2, Lines 46-49. Applicant respectfully disagrees.

Claims 5, as well as Claims 11 and 17, which recite similar limitations to Claim 5, are allowable at least in part because they depend from allowable independent Claims 1, 7 and 13, and because of their additional limitations, some of which have been discussed above. Consequently, reconsideration and allowance of Claims 5, 11 and 17 is respectfully requested.

With respect to Claims 6, 7, and 13, the Examiner appears to be further asserting that Berman suggests the display of healthcare information that includes medical history information that includes order information, citing Berman, Col. 3, Lines 40-67 to Col. 4, Line 32. The Applicant notes that the Page 5, section B of the Office Action was ambiguous as to whether the Examiner was rejecting Claim 6 for that reason. In any event, the Applicants respectfully disagree with this apparent additional rejection of Claim 6, 7 and 13.

As already noted, the Berman reference appears to disclose the type of system that does not support providing a medical history of a patient, but rather a universal service request fulfillment system that merely functions as an intermediary between systems, such as legacy healthcare systems, that might not otherwise be able to interact in an automated fashion, for the

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limited purpose of fulfilling independent service requests. Nothing in Berman suggests that a comprehensive medical history comprising healthcare service order information, medical event information and medical encounter information as recited Claims 6, depending from Claim 1, and in independent Claims 7 and 13. Claims 6 is allowable at least in part because it depends from allowable independent Claims 1 and because of additional limitations, some of which have been discussed above. Consequently, reconsideration and allowance of Claims 6, 7, and 13 is respectfully requested.

The Examiner has further rejected Claims 8-12, and 14-18 for the same reasons as the rejections of Claims 2-6. The Applicants respectfully disagree, and assert the same arguments made with respect to the rejections of Claims 2-6. Consequently, reconsideration and allowance of Claims 8-12 and 14-18 is respectfully requested.

#### CONCLUSION

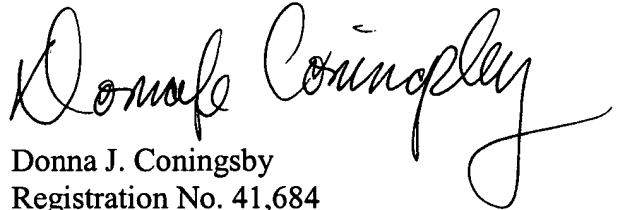
In view of the foregoing remarks, Applicant submits that all of the claims in the present application are clearly patentably distinguishable over the teachings of Chikovani taken alone or in combination with other teachings in the prior art. Independent Claims 1, 7 and 13 are clearly and patentably distinguishable over the cited and applied references. Claims 2-6, 8-12, and 14-18 are allowable because they depend from allowable independent Claims 1, 7 and 13, and because of their additional limitations, some of which have been discussed above. Accordingly, Applicants submit that this application is in condition for allowance. Reconsideration and reexamination of the application, allowance of the claims, and passing of the application to issue at an early date are solicited. If the Examiner has any remaining questions concerning this

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application, the Examiner is invited to contact the Applicant's undersigned attorney at the number below.

Respectfully submitted,

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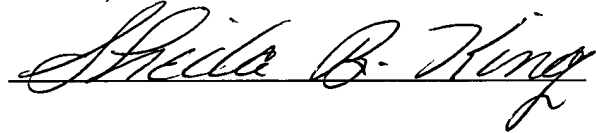


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